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	EXAMINER
	NAJJAR, S

ART UNIT	PAPER NUMBER
2154	

DATE MAILED:
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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>06 July 2001</u> .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>11-30</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>11-30</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
         application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)	4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) ☐ Notice of Informal Patent Application (PTO-152)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4</u> .	6) ☐ Other: .

1. This action is responsive to the amendment filed on July 6, 2001. Claims 1-10 were canceled. Claims 11-20 were newly added. Claims 11-20 represent an apparatus and method directed toward sending messages and receiving messages in a client server environment over multiple wireless networks.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) a patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CAR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 11-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ahopelto.

Ahopelto teaches the invention substantially as claimed including a packet radio system and method for a protocol-independent routing of a data packet in a packet radio network (see abstract).

As to claim 11, Ahopelto teaches a Messaging system for communicating messages in a client server environment over multiple wireless networks, each multiple network supporting a respective network protocol (see fig. 1, col. 4), comprising:

a plurality of client applications, each client application executed by a client device (see fig. 1; col. 8, lines 15-25, Ahopelto discloses a mobile computer having a client application);

a server application executed by a back-end server (see fig. 1;

a gateway application configured to encapsulate a network communication protocol (see fig. 1; col. 4-7, Ahopelto teaches that gateway nodes include applications supporting encapsulation of client communication data); and

a plurality of protocol gateways, each protocol gateway supporting a respective wireless network, and each protocol gateway utilizing said server class (gateway application) to encapsulate a respective transport header of a message from one client application of said plurality of client applications to said back-end server to that said server is unaware of said respective wireless network protocol (see fig. 1; col. 4; col. Lines 35-65; col. 7, lines 65-67; col. 8, lines 1-20, Ahopelto teaches a gateway support node that encapsulates a IPX data packet in a GPRS radio link protocol data packet and sends it to the radio interface of thee wireless network, the gateway support nodes help deliver messages between a host connected to a data packet network and a mobile computer connected to a wireless network).

Ahopelto does not explicitly teach a plurality of server applications executed by the back-end server (host).

However, "Official Notice" is taken that the concept and advantages of implementing a plurality of server applications on a single server is old and well known in the data processing art. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ahopelto by including multiple server applications on the host in Ahopelto.

As to claim 12, Ahopelto teaches a Messaging system for communicating messages in a client server environment over multiple wireless networks, each multiple network supporting a respective network protocol as in claim 11 above.

Ahopelto fails to teach the claimed limitation wherein the messages exceeding a predefined maximum size are segmented into multiple message segments.

However, "Official Notice" is taken that the concept and advantages of packet data segmentation is old and well known in the data processing art since it involves breaking an arbitrary size packet into smaller pieces at the transmitter.

It would have been obvious to one of ordinary skill in the art att he time of the invention to modify Ahopelto by implementing segmentation at the transmitter since this may be necessary because of restrictions in the communications channel or to reduce latency. One would be motivated t o do so since segmentation may be performed by a router when routing a packet to a network with a smaller maximum packet size.

As to claims 13-14, Ahopelto teaches a Messaging system for communicating messages in a client server environment over multiple wireless networks, each multiple network supporting a respective network protocol as in claim 11 above.

Ahopelto fails to teach the claimed limitation wherein duplicate segments are discarded.

However, "Official Notice" is taken that the concept and advantages of discarding duplicate packet segments is old and well known in the data processing art.

It would have been obvious to one of ordinary skill in the art att he time of the invention to modify Ahopelto by discarding duplicate packet segments to reduce storage requirements at the receiver.

As to claims 15, and 22, Ahopelto teaches a Messaging system for communicating messages in a client server environment over multiple wireless networks, each multiple network supporting a respective network protocol as in claim 11 above.

Ahopelto fails to teach the claimed limitation wherein message ACK and NAK services are supported for the different network protocols.

However, "Official Notice" is taken that the concept and advantages of using ACK and NAK messages in network protocols to indicate that some data has been received correctly or not is old and well known in the Messaging network art.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ahopelto by including ACK and NAK in the network protocols so that the original data will be sent again if ACK has not been after some predetermined time by the sender, or receives a NAK.

As to claim 16, Ahopelto teaches a Messaging system for communicating messages in a client server environment over multiple wireless networks, each multiple network supporting a respective network protocol as in claim 11 above.

Ahopelto fails to teach the claimed limitation slowing transmission of messages in response to number of segments exceeding a specified number.

However, "Official Notice" is taken that the concept and advantages of slowing transmission of messages in response to number of segments exceeding a specified number is old and well known in the data processing art.

It would have been obvious to one of ordinary skill in the art att he time of the invention to modify Ahopelto by slowing transmission of messages in response to number of segments exceeding a specified number to reduce bandwidth requirement in the network.

As to claim 17, Ahopelto teaches a Messaging system for communicating messages in a client server environment over multiple wireless networks, each multiple network supporting a respective network protocol as in claim 11 above, further comprising at least one message router, wherein said one client applications further configured to establish a session with one server application of said plurality of server applications and said at least one message router is configured to route messages between said one server application and said one client application (see figs. 1-13; col. 4-10).

As to claims 18, 25, Ahopelto teaches a Messaging system for communicating messages in a client server environment over multiple wireless networks, each multiple network supporting a respective network protocol as in claim 17 above, wherein said at least one message router is further configured to enumerate a list of said plurality of protocol gateways and said backend server (see col. 5-9).

As to claim 19, Ahopelto teaches a Messaging system for communicating messages in a client server environment over multiple wireless networks, each multiple network supporting a respective network protocol as in claim 18 above, wherein said at

least one message router is further configured to establish an maintain a TCP/IP connection with each protocol gateway (see col. 6, lines 55-60).

As to claim 20, Ahopelto teaches a Messaging system for communicating messages in a client server environment over multiple wireless networks, each multiple network supporting a respective network protocol as in claim 17 above.

Ahopelto does not explicitly disclose the claimed limitation wherein the message router authenticates the origin of the message using a data base having routing and authentication information, before routing of the message.

However, "Official Notice" is taken that the concept and advantages of authenticating the origin of the message at a router using a database containing routing and authentication information is old and well known in the network communication art.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Ahopelto by incorporating the authentication of messages at the router to verify the identity of a process or a person prior to message delivery.

As to claim 21, Ahopelto teaches a Messaging system for communicating messages in a client server environment over multiple wireless networks, each multiple network supporting a respective network protocol as in claim 17 above.

Ahopelto does not explicitly teach the claimed limitation of indirect and direct routing performed at routers.

"Official Notice" is taken that the concept and advantages of using direct/indirect routing is old and well known in the art.

As to claims 23-24, Ahopelto teaches a Messaging system for communicating messages in a client server environment over multiple wireless networks, each multiple network supporting a respective network protocol as in claim 22 above.

Ahopelto does not explicitly teach the claimed limitation of decompress/decompress or encrypt/decrypt messages.

"Official Notice" is taken that the concept and advantages of using

compression/decompression or encryption/decryption is old and well known in the art.

Claims 26-30 do not teach or define any new limitations above claims 11-20 and therefore are rejected for similar reasons.

4.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saleh Najjar whose telephone number is (703) 308-7613. The examiner can normally be reached on Monday-Friday from 6:30 to 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, AN MENG AI, can be reached on (703) 305-9678. The fax phone number for this Group is (703) 308-9052.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-9600.

Saleh Najjar
Examiner Art Unit 2154